

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

REMARKS/ARGUMENTS

Claims 8-10, 12-15, 41-44, 52-53, 56-57, 59-64, 67-92, and 94-98 are pending in this application. By this Amendment, claims 8, 53, 71, 83 and 89 are amended, and claim 66 is cancelled without prejudice or disclaimer. Support for the claims can be found throughout the specification, including the original claims, and the drawings. The Examiner is thanked for the courtesies extended to Applicant's representative in the personal interview conducted March 30, 2005. The substance of the interview, including any agreements reached, is reflected in the above amendments and the following remarks. Thus, withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance for the reasons discussed herein; (2) do not raise any new issues requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter; (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal if necessary. Entry is thus requested.

I. Allowable Subject Matter

The Examiner is thanked for the indication that claims 63-64, 67-70, 85, and 88 are allowed, and that claims 13-15, 42, 44, 56, 61, 66, 72, 75-76, 78, 80-82, 84, 87, 90-91, and 93

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 66 is cancelled. Further, for the reasons set forth below, claims 13-15, 42, 44, 56, 61, 72, 75-76, 78, 84, 87, and 90-91 have not been rewritten in independent form at this time.

It respectfully submitted that objected to claims 80 and 82 are already in independent form, and thus independent claims 80 and 82, as well as objected to claim 81, which depends from independent claim 80, and claims 96-97, which depend respectively from claims 80 and 82, are also in condition for allowance.

Further, it is noted that the subject matter of allowable claim 93 was incorporated into independent claim 92, and claim 93 was cancelled, in the Amendment filed October 19, 2004. Thus, independent claim 92, as well as claim 94, which depends therefrom, should also be in condition for allowance.

Additionally, it is noted that claims 95-98, which were added in the October 19, 2004 Amendment, are not rejected over art. It is therefore assumed, for purposes of this reply, that claims 95-98 are also allowable.

II. Informalities

The Office Action objects to claim 66 under 37 CFR 1.75(c). Claim 66 is cancelled, and thus the objection is moot.

III. Rejections Under 35 U.S.C. §103(a)

A. Schulman

The Office Action rejects claim 86 under 35 U.S.C. §103(a) over U.S. Patent No. 5,531,679 to Schulman et al. (hereinafter “Schulman”). The rejection is respectfully traversed.

Independent claim 86 recites, *inter alia*, at least one electrode configured to sense electrical activity of the hypothalamus. As discussed in the personal interview, Schulman neither discloses nor suggests such features.

More specifically, as discussed during the personal interview, the fluidic infusion system disclosed by Schulman includes a sensor 19 with an active area 27 which measures glucose concentration, oxygenation levels, pH, temperature, and the like in the bloodstream (see column 6, lines 1-3 of Schulman). Schulman does not disclose or suggest that the active area 27 of the sensor 19 is configured to sense electrical activity, let alone electrical activity of the hypothalamus. Further, it would not have been obvious to modify the sensor 19 disclosed by Schulman to sense electrical activity. Schulman’s system is specifically designed for use in the bloodstream, and the sensor is thus specifically configured to monitor blood related parameters. Schulman provides no teaching or suggestion that it is necessary to also monitor any type of electrical activity, nor that the sensor 19 could be so adapted, nor that it would be advantageous to do so. Rather, adapting the sensor 19 in such a manner would require the use of additional components which would allow the sensor 19 to sense and convey such electrical signals, and

which would destroy the intended functionality of the sensor 19 as disclosed.

For at least these reasons, it is respectfully submitted that independent claim 86, as well as objected to claim 87 which depends therefrom, are allowable over Schulman, and thus the rejection of independent claim 86 under 35 U.S.C. §103(a) over Schulman should be withdrawn.

B. Kaplan

The Office Action rejects claims 8, 12, 41, 52-53, 57, 62, 71, 73, 77, 79, 92, and 94 under 35 U.S.C. §103(a) over U.S. Patent No. 5,772,629 to Kaplan et al. (hereinafter “Kaplan”). As set forth above, the subject matter of allowable claim 93 was incorporated into independent claim 92, and claim 93 was cancelled, in the Amendment filed October 19, 2004. Thus, independent claim 92, as well as claim 94, which depend therefrom, should also be in condition for allowance. The rejection is respectfully traversed in so far as it applies to the remaining claims.

Independent claim 8 recites, *inter alia*, a plurality of microinfusion catheters disposed non-coaxially and non-parallel with respect to one another and configured to be inserted into the hypothalamus of a patient’s brain. As discussed during the personal interview, Kaplan neither discloses nor suggests such features. Rather, as discussed during the personal interview, the lumens 126 which extend along the expandible portion 113 of Kaplan’s catheter 110 remain in a position parallel to one another along the length of the catheter 110, even when the balloon B is inflated and the ports 128 are brought into contact with an arterial wall. Kaplan neither discloses nor suggests a plurality of microinfusion catheters disposed non-parallel with respect to one

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

another, as recited in independent claim 8, or the claimed combination.

Accordingly, it is respectfully submitted that independent claim 8 is allowable over Kaplan, and thus the rejection of independent claim 8 under 35 U.S.C. §103(a) over Kaplan should be withdrawn. Rejected dependent claims 12, 41, and 52, as well as objected to claims 13-15, and 42, are allowable at least for the reasons set forth above with respect to independent claim 8, from which they depend, as well as for their added features.

Independent claim 53 recites, *inter alia*, wherein each of the plurality of microinfusion catheters is configured to move axially with respect to the macrocatheter such that an end portion of each of the plurality of microinfusion catheters extends beyond an end of the macrocatheter. As discussed during the personal interview, Kaplan neither discloses nor suggests such features. Rather, as discussed during the personal interview, the lumens 126 and associated ports 128 are fixed within their positions along the expandable portion 113 of Kaplan's catheter 110. Inflation of the balloon B causes the lumens 126 and ports 128 to move radially until they are brought into contact with an arterial wall. Kaplan neither discloses nor suggests a plurality of microinfusion catheters configured to move axially with respect to the macrocatheter, as recited in independent claim 53, or the claimed combination.

Accordingly, it is respectfully submitted that independent claim 53 is allowable over Kaplan, and thus the rejection of independent claim 53 under 35 U.S.C. §103(a) over Kaplan should be withdrawn. Rejected dependent claims 57 and 62, as well as objected to claim 56, are

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

allowable at least for the reasons set forth above with respect to independent claim 53, from which they depend, as well as for their added features.

Independent claim 71 recites, *inter alia*, wherein at least one of said plurality of microinfusion catheters is movable in an axial direction within said macrocatheter. As discussed during the personal interview and as set forth above, Kaplan neither discloses nor suggests such features. Accordingly, it is respectfully submitted that independent claim 71 is allowable over Kaplan, and thus the rejection of independent claim 71 under 35 U.S.C. §103(a) over Kaplan should be withdrawn. Rejected dependent claims 73, 77 and 79, as well as objected to claims 72 and 78, are allowable at least for the reasons set forth above with respect to independent claim 71, from which they depend, as well as for their added features.

C. Kaplan and Scheinman

The Office Action rejects claims 9-10, 43, 59-60, 74, 83, and 89 under 35 U.S.C. §103(a) over Kaplan in view of U.S. Patent No. 5,429,131 to Scheinman et al. (hereinafter “Scheinman”). The rejection is respectfully traversed.

Dependent claims 9-10, 43, 59-60, and 74 are allowable over Kaplan at least for the reasons set forth above with respect to independent claims 8, 53 and 71, from which they respectively depend, as well as for their added features. Further, Scheinman is merely cited to teach sensing and magnetic electrodes, and thus fails to overcome the deficiencies of Kaplan.

Serial No. 09/661,153

Docket No. UIOWA-0008P4D1

Amendment Dated April 13, 2005

Reply to Office Action of January 13, 2005

Accordingly, it is respectfully submitted that claims 9-10, 43, 59-60 and 74, as well as objected to claims 44, 61, and 75-76 which depend respectively therefrom, are allowable over the applied combination, and thus the rejection of claims 9-10, 43, 59-60 and 74 under 35 U.S.C. §103(a) over Kaplan and Scheinman should be withdrawn.

Independent claim 83 recites, *inter alia*, a plurality of microinfusion catheters disposed non-coaxially and non-parallel with respect to one another. As discussed during the personal interview and as set forth above, Kaplan neither discloses nor suggests such features. Further, as set forth above, Scheinman is merely cited to teach the use of sensing electrodes, and thus fails to overcome the deficiencies of Kaplan. Accordingly it is respectfully submitted that independent claim 83, as well as claim 98 and objected to claim 84, which depend therefrom, are allowable over the applied combination, and thus the rejection of independent claim 83 under 35 U.S.C. §103(a) over Kaplan and Scheinman should be withdrawn.

Independent claim 89 recites, *inter alia*, wherein at least one microinfusion catheter of the plurality of microinfusion catheters is movable in an axial direction with respect to the macrocatheter. As discussed during the personal interview and as set forth above, Kaplan neither discloses nor suggests such features. Further, as set forth above, Scheinman is merely cited to teach the use of magnetic electrodes, and thus fails to overcome the deficiencies of Kaplan. Accordingly it is respectfully submitted that independent claim 89, as well as objected to claims 90-91 which depend therefrom, are allowable over the applied combination, and thus

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

the rejection of independent claim 89 under 35 U.S.C. §103(a) over Kaplan and Scheinman should be withdrawn.

IV. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, Joanna K. Mason, at the telephone number listed below. Favorable consideration and prompt allowance are earnestly solicited.

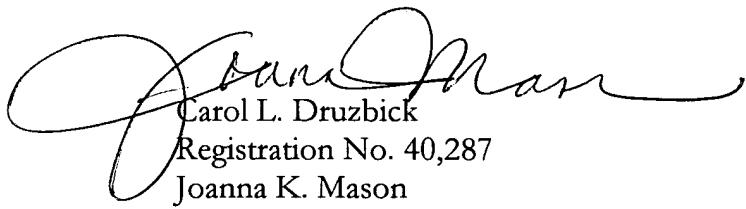
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

Serial No. 09/661,153
Amendment Dated April 13, 2005
Reply to Office Action of January 13, 2005

Docket No. UIOWA-0008P4D1

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and
please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



Carol L. Druzick
Registration No. 40,287
Joanna K. Mason
Registration No. 56,408

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 766-3701 MLF:CLD:JKM/par:cab
Date: April 13, 2005
Please direct all correspondence to Customer Number 34610